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‘MODERNISATION OF OUR HOSPITAL SYSTEM’: THE NATIONAL HEALTH SERVICE, THE HOSPITAL PLAN, AND THE ‘HARNESS’ PROGRAMME, 1962-77

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In January 1962, the *Daily Mail* reflected on British hospital architecture:

The average large city hospital is a grim, grimy, forbidding relic of the Victorian age, out of date and out of place. At last it is to be replaced by something as modern as, say, the latest office block.¹

The cause of the *Mail*’s optimism was the publication that month of ‘A Hospital Plan for England and Wales’. Overseen by the Minister of Health, Enoch Powell, this document set out ‘a plan not merely for building, remodelling or improving large numbers of hospitals, but for modernising the whole pattern and content’ of the National Health Service (NHS).² In 1948, the newly formed NHS had inherited a collection of often aging institutional buildings. In their place, the Hospital Plan promised a systematic and apparently progressive approach, with Lord Newton referring to the ‘modernisation of our hospital system’.³ A new generation of ‘District General Hospitals’ (DGHs) would promote economies of scale and medical efficiency.

¹ ‘The Hospitals’, *Daily Mail*, 24 January 1962.

² ‘A Hospital Plan for England and Wales’, Cmnd. 1604 (London, 1962), iii.

³ *Hansard*, HL Deb 14 February 1962, vol. 237 c 473.

With 600-800 beds, the *Observer* reported that they would 'place the most modern treatment at the service of patients.'⁴ In essence, British hospital provision and architecture would be re-thought, in a context in which institutional, infrastructural, and urban modernization was being given tangible form by contemporary architecture. Underpinning the DGH concept was an assumption that new approaches to hospital design and construction were desirable in order to speed the realization of the Plan without excessive expense. As a result, during the second half of the 1960s and the early 1970s, the Ministry of Health (and its successor from 1968, the Department of Health and Social Security [DHSS]) devoted significant resources to the question of standardization in hospital architecture. Several proposals resulted, culminating in a form of standardized planning and construction known as 'Harness'. Prototypes followed, before the programme was abandoned in 1975.

From the late 1950s, a belief in planning as a tool to reshape the economy, society, and the built environment was shared by both Labour and the Conservatives. Harold Macmillan's Conservative governments, having come to accept the fundamentals of the post-war welfare state, embraced planning at the end of the 1950s.⁵ Rodney Lowe has seen this move as an attempt to 'adapt Conservatism to the reality of an affluent, technologically complex society',⁶ but there were also pragmatic factors in its favour, including sterling crises in 1957 and 1961, while it was thought that entirely reversing post-war policy – i.e., nationalization and the Welfare State – would in any case be impossible. The Hospital Plan thus came into being amid a rash

⁴ 'The Powell Ten-Year Plan for Hospitals', *Observer*, 28 January 1962.

⁵ Glen O'Hara, *From Dreams to Disillusionment: economic and social planning in 1960s Britain* (Basingstoke, 2007), 9.

⁶ Rodney Lowe, 'The Replanning of the Welfare State', in Martin Francis and Ina Zweiniger-Bargielowska (eds), *The Conservatives and British Society, 1880-1990* (Cardiff, 1996), 255-73 (p. 255).

of modernizing 'plans', including the Robbins Report on Higher Education (1963), the Buchanan Report on traffic planning (1963), and the Parker Morris report on the design of housing (1961). The Public Expenditure Survey Committee was created in 1961, while the National Economic Development Council followed in 1962.⁷ Within this context, the Hospital Plan is nonetheless notable. The report covering England and Wales was followed by separate documents with proposals for Scotland and Northern Ireland.⁸ While hospital planning was not unique in its national scope, it was distinctive in the extent to which it proposed a centralized approach to provision and design. By contrast, the design of schools, housing, and universities remained local matters, albeit ones shaped by central-government finance.⁹ And yet, the NHS had been conceived with an essentially devolved structure. Enacting the Plan would, therefore, require careful negotiation with the regional bodies which oversaw hospital provision, and whose proposals the Plan in fact contained.¹⁰

The push to realize hospitals within a planned system survived the elections of 1964 and 1970, partly in recognition of the real need for new buildings but also because planning and infrastructural modernization remained priorities, especially during the Labour governments of 1964-70.¹¹ The return of the Conservatives in 1970 seemed to promise a more laissez-

⁷ Christopher Pollitt, 'The Public Expenditure Survey 1961-72', *Public Administration* 55/2 (1977), 127-42; Tony Cutler, 'Economic Liberal or Arch Planner? Enoch Powell and the Political Economy of the Hospital Plan', *Contemporary British History* 25/4 (2011), 469-89 (p. 472).

⁸ E.g. *Summary of the Hospital Building Programme of the Northern Ireland Hospitals Authority, March 1963* (London, 1963).

⁹ E.g. William Whyte, *Redbrick: a social and architectural history of Britain's civic universities* (Oxford, 2015).

¹⁰ Richard Biddle, 'From Optimism to Anger: Reading and the local consequences arising from the Hospital Plan for England and Wales, 1962', *Family and Community History* 10/1 (2007), 5-17.

¹¹ Andrew Blick, 'Harold Wilson, Labour, and the machinery of government', *Contemporary British History* 20/3 (2006), 343-62.

faire approach, but in the event, the new government's policy demonstrated continuities with its predecessors. Edward Heath's 'corporatist' strategy was predicated on the involvement of employers and the unions in industrial policy,¹² but the state nonetheless continued to act to control wages, prices, and investment,¹³ while what Robert Taylor has seen as Heath's 'government-led growth strategy' placed 'strong emphasis on public investment programmes, especially in infrastructure'.¹⁴ Furthermore, while Heath promoted institutional reform using the language of contemporary managerialism, the reorganization of central and local government (and the NHS) was essentially underpinned by the same search for efficiency which had prompted the Hospital Plan ten years before.¹⁵ Nonetheless, the architectural and physical planning context had changed by the early 1970s.¹⁶ There were growing doubts about the wisdom of comprehensive redevelopment in Britain's towns and cities, while the belief of some designers and manufacturers in the value of industrialization and standardization was challenged. The partial collapse of the system-built Ronan Point flats in an explosion in 1968 served to give the debate a particularly clear focus.

This article examines politicians' and architects' ambitions for the hospital system between 1962 and 1977. Planning in this period has attracted

¹² Andrew Gamble, 'The decline of corporatism', in Derek Crabtree and A.P. Thirlwall (eds) *Keynes and the role of the state* (Basingstoke, 1993), 41-68 (p. 44).

¹³ Lowe, 'Welfare State', 267.

¹⁴ Robert Taylor, "The Heath government, industrial policy and the "new capitalism"", in Stuart Ball and Anthony Seldon (eds), *The Heath Government 1970-1974: a reappraisal* (London, 1996), 136-59 (p. 138).

¹⁵ John Campbell, *Edward Heath: a biography* (London, 1993), 384-5.

¹⁶ Elain Harwood and Alan Powers, 'From Downtown to Diversity: revisiting the 1970s', *Twentieth Century Architecture* 10 (2012), 9-36.

extensive scholarship, engaging with the plans themselves,¹⁷ the extent to which planning involved the re-imagining of the built environment,¹⁸ and the idea that planning could be directed towards the construction of new kinds of citizenship.¹⁹ Many accounts take a critical or at least pessimistic view.²⁰ Glen O'Hara, for example, contrasts initial 'dreams' with subsequent 'disillusionment',²¹ while Alistair Kefford argues that the spatial practices of 1960s planning marginalized those whose attitudes and behaviours failed to fit the planners' paradigm.²² As far as the Hospital Plan is concerned, O'Hara dubs it 'the most ambitious project hitherto mounted by the National Health Service' but also points to the way in which it was based on guesswork; he questions the assumption that standardized hospitals were the best way forward.²³ The present article seeks to augment this literature. It relates the drive to 'plan' the hospital system to the specific architectural response devised by the Ministry of Health and the DHSS. In so doing, it reveals the challenges of putting centralized planning into practice. By looking at the changing terms in which the re-planning of Britain's hospitals was discussed, the competing groups that were involved, and changes in government policy, it is argued that the abandonment of the programme was as much the product of internal tensions inherent in the structure of the NHS as it was the result of financial pressures or worries about system-built modern

¹⁷ E.g. Simon Gunn, 'The Buchanan Report, Environment, and the Problem of Traffic in 1960s Britain', *Twentieth Century British History* 22/4 (2011), 521-42.

¹⁸ E.g. Otto Saumarez Smith, 'Central Government and Town-Centre Redevelopment in Britain, 1959-1966', *Historical Journal* 58/1 (2015), 217-44.

¹⁹ E.g. Alistair Kefford, 'Housing the Citizen-Consumer in Post-war Britain: the Parker Morris Report, affluence, and the even briefer life of social democracy', *Twentieth Century British History* 2017 [online publication].

²⁰ James C. Scott, *Seeing Like a State: how certain schemes to improve the human condition have failed* (New Haven, 1998).

²¹ O'Hara, *Dreams*.

²² Alistair Kefford, 'Constructing the Affluent Citizen: state, space, and the individual in post-war Britain 1945-79', Ph.D. diss., Manchester, 2015.

²³ O'Hara, *Dreams*, 167, 188.

architecture. After 1975, a revised approach was developed which, by taking into account these internal tensions, was to enjoy significant success.

THE HOSPITAL PLAN AND THE IDEA OF STANDARDIZATION

The 'Hospital Plan for England and Wales' promised to rationalize the patchwork of hospitals which the National Health Service had taken over from previous charitable, voluntary, and municipal bodies in 1948. Many hospital buildings had seemed obsolete even in the 1940s in the face of advances in treatments, changes in population location, and, by the end of the decade, a growing population.²⁴ In 1948, some 45% of British hospital buildings pre-dated 1891; 21% pre-dated 1861.²⁵ The image of their Victorian architecture was also at odds with the values of the new Welfare State, which co-opted the forms and materials of modern architecture to provide new housing, schools, and, increasingly, universities. However, capital expenditure was restricted until 1955.²⁶ The only major projects to be started were at Alexandria in central Scotland (Vale of Leven Hospital), and – in a different context of public health organization – Altnagelvin in Northern Ireland. However, the hiatus in major construction was nonetheless put to productive use. A multi-disciplinary research team was sponsored by the Nuffield Provincial Hospitals Trust to investigate hospital planning.²⁷ Their report, published in 1955, reviewed the history of each part of the hospital before turning to present practice and future needs, showing how new models of care (such as 'early ambulation') required potentially new approaches to the arrangement of space within the hospital. Its findings

²⁴ 'Hospital Plan', 1.

²⁵ Ibid.

²⁶ Elain Harwood, *Space, Hope and Brutalism: English architecture, 1945-1975* (New Haven and London, 2015), 284.

²⁷ [Nuffield Provincial Hospitals Trust], *Studies in the Functions and Design of Hospitals* (London, 1955).

informed some of the small number of projects which were begun in the second half of the 1950s, including a major hospital at Swindon.²⁸

In 1959, the Conservatives promised 'a big programme of hospital building'.²⁹ Driving this initiative was the Minister of Health, Enoch Powell, who believed that a planned network of efficient modern hospitals would allow greater control of on-going operational spending.³⁰ He considered the NHS inferior to private medicine, but believed it could not be abolished and so needed 'business-like improvement of its efficiency'.³¹ The cost of the NHS had long worried Conservatives.³² Well-planned new buildings, it was thought, would allow more efficient models of care to emerge, allowing scarce resources to be put to best use. Powell's ultimate goal was a building which would be cheaper to run per bed or treatment than existing hospitals on account of its considered location, up-to-date planning, and inbuilt flexibility. (In practice, rising costs and increasing demand would ultimately challenge the idea that savings could be made.) The 1962 Plan therefore proposed that ninety 'district general hospitals' in England and Wales should be constructed by 1975, with 134 more being the subject of 'substantial rebuilding' at an estimated cost of £500 million. Expectations were high. The chairman of the Manchester Regional Hospital Board referred to the publication of the Plan as 'the most momentous event in the history of the health service.'³³

²⁸ Harwood, *Space, Hope and Brutalism*, 285.

²⁹ Conservative Party 1959 manifesto, 'The Next Five Years' (online at <http://www.conservativemanifesto.com/1959/1959-conservative-manifesto.shtml> (accessed on 11 February 2018)).

³⁰ Cutler, 'Economic Liberal?', 476-8.

³¹ Lowe, 'Welfare State', 265.

³² O'Hara, *Dreams*, 169.

³³ 'Hospitals Building Programme', *Guardian*, 24 January 1962, 10.

Progress, however, was slow. In 1965, the Labour Minister of Health, Kenneth Robinson, claimed that the Plan had been compiled in haste.³⁴ Research now suggested that ‘many of the schemes shown in the original Plan as expected to start by 1970/71 were inadequately defined and imprecisely costed’.³⁵ Reappraisal was also suggested by continuing medical advances. Before the 1940s, much hospital care had essentially been convalescent. By the mid 1960s, however, hospitals were increasingly places of complex surgery and high-technology treatment. Furthermore, newly increased predictions of population growth also challenged the basis on which the 1962 Plan had been made, with the surge in the birth rate of the mid-1960s rivalling that of the mid-1940s: it was assumed that the British population would number 66.4 million by 2001.³⁶ In 1966, therefore, the Plan was revised. However, although the new document was presented as a ‘programme’ rather than a ‘plan’, the key assumption of 1962 – that new hospitals were needed – remained intact. Indeed, the Bonham-Carter report of 1969 on the functions of the DGH not only retained the concept but also increased its size. It was still believed by at least some civil servants that all pre-1939 hospital buildings would be replaced by 2001.³⁷ The principle of major construction further survived the Conservatives’ 1970 general election victory. Sir Keith Joseph – now responsible for health – recorded in 1972 that the foundation of the system remained the planned DGH.³⁸

How would the Plan be delivered? The NHS was essentially decentralized as far as hospital management was concerned. For its first

³⁴ *Hansard*, HC Deb 22 Dec 1965 vol 722 c 2208.

³⁵ ‘The Hospital Building Programme: a revision of the Hospital Plan for England and Wales’, Cmnd. 3000 (London, 1966), 1.

³⁶ The National Archives: Public Record Office [hereafter ‘TNA: PRO’], Kew, MH166/486, Building Working Party Paper [hereafter ‘BWP’] 8, ‘Hospitals for the twentieth century’.

³⁷ *Ibid.*

³⁸ ‘The District General Hospital’, *Hospital and Health Services Review*, 68/3 (March 1972), 77.

twenty-six years, fourteen (later fifteen) large Regional Hospital Boards (RHBs) provided strategic oversight. Hospital Management Committees had important local roles, while teaching hospitals in England were run by separate Boards of Governors.³⁹ (The revised system introduced in 1974 still left much power with the new Regional Health Authorities.) However, the Ministry increasingly sought to take an active role. In 1960, Raymond Gedling, its assistant secretary, reported that the Ministry wished to move away from the detailed interrogation of individual schemes to offer broader guidance.⁴⁰ Echoing practice in the Ministry of Education, whose 'Architects and Buildings Branch' had been created in 1949 to investigate school design,⁴¹ the Ministry of Health created its own Architect's Department at the end of the 1950s, and soon employed more than 100 architects.⁴²

William Tatton-Brown was appointed chief architect in 1959. He had begun his career during the 1930s in Berthold Lubetkin's progressive architectural practice, Tecton, before striking out on his own. Driven by a belief in the value of architecture as social service, in 1946 he moved into 'public' practice, joining the Ministry of Town and Country Planning and then Hertfordshire County Council, where he was involved in the county's programme of standardized steel-framed schools.⁴³ At the Ministry of Health, Tatton-Brown inaugurated experimental projects including an innovative hospital at Greenwich, which was distinguished by its compact planning and

³⁹ Raymond Gedling, 'The National Health Service', *RIBA Hospitals Course Handbook* (London, 1960), 8–11.

⁴⁰ *Ibid.* 10–11.

⁴¹ Geraint Franklin, "'Built-in variety": David and Mary Medd and the child-centred primary school, 1944–80', *Architectural History*, 55 (2012), 321–67 (p. 328).

⁴² Joe Kerr, 'Obituary: William Tatton-Brown', *Independent*, 10 February 1997 (online at <http://www.independent.co.uk/news/obituaries/obituary-william-tatton-brown-1277973.html>, accessed on 24 January 2017).

⁴³ Andrew Saint, *Towards a Social Architecture: the Role of School-building in Post-war England* (New Haven and London, 1987), 95–96.

air conditioning.⁴⁴ The publication of 'Building Bulletins', which had begun in 1957, was accelerated, and Tatton-Brown oversaw an accompanying series of 'Building Notes', an idea borrowed from the Ministry of Education.⁴⁵ These documents were cognisant of local practice but challenged the largely decentralized basis on which design had hitherto proceeded.

Underpinning the 1962 Plan was a presumption in favour of design standardization. This idea was prominent in public architecture at the time, not least housing and schools.⁴⁶ Hertfordshire's well-received schools have been noted already: standardization and prefabrication allowed them to be rapidly and economically built. In the late 1950s, Nottinghamshire led the development of the 'CLASP' system. CLASP won a special prize at the 1960 Milan Triennale, attracting international attention and seemingly confirming the value of this kind of approach.⁴⁷ The use of standard components and 'industrialized techniques' in design, procurement, and building was embraced by politicians across the political spectrum. For example, the Conservative manifesto in 1964 referred to the use of 'up-to-date methods and techniques which save site labour and increase productivity', with 'voluntary consortia of local authorities and our National Building Agency' (founded during Keith Joseph's time as Minister of Housing) being intended to foster innovation.⁴⁸ Labour, too, advocated the 'more rapid use of industrialized

⁴⁴ 'Greenwich District General Hospital', *Architects' Journal*, 139/23 (3 June 1964), 1263–68.

⁴⁵ [Ministry of Health], 'Hospital Building Note 2: the cost of hospital buildings' (London, 1961), 4.

⁴⁶ Saint, *Social Architecture*; Miles Glendinning and Stefan Muthesius, *Tower Block: Modern Public Housing in England, Wales, Scotland and Northern Ireland* (New Haven and London, 1994); Christine Wall, *An Architecture of Parts: Architects, Building Workers and Industrialisation in Britain* (Abingdon, 2013).

⁴⁷ Saint, *Social Architecture*, 175–6.

⁴⁸ Conservative Party 1964 Manifesto, 'Prosperity with a Purpose' (online at <http://www.conservativemanifesto.com/1964/1964-conservative-manifesto.shtml> (accessed on 11 February 2018)).

building'.⁴⁹ In a general sense, this agenda might be thought to reflect the interest of both parties in modernization. Certainly Powell in 1961 was critical of the frequent monumentality of the past:

Hospital building is not like pyramid-building, the erection of memorials to endure to a remote posterity. We have to get the idea into our heads that a hospital is a shell, a framework, however complex, to contain certain processes, and when the processes change or are superseded, then the shell must most probably be scrapped and the framework dismantled.⁵⁰

This appeal to the ideas of obsolescence and change invoked themes which were often significant in modernist architectural discourse. Through the frequent use in modern architecture of steel and concrete structural frames rather than load-bearing walls, internal spaces could, in theory at least, be reconfigured in the light of changing needs, and some architects explicitly presented their work in terms of flexibility and indeterminacy.⁵¹

It was also hoped that standardization and prefabrication would address issues in the building industry. In 1962, Baroness Summerskill linked the shortage of housing with a lack of skilled building labour.⁵² Standardized components, produced in factories, could often be assembled on building sites using semi-skilled workers. For this reason (among others), a modified version of the CLASP system was used at the new University of York, while after 1963 standardization and industrialization were encouraged in council

⁴⁹ Labour Party 1964 manifesto, 'The New Britain' (online at <http://www.politicsresources.net/area/uk/man/lab64.htm> (accessed on 11 February 2018)).

⁵⁰ Enoch Powell, 'Water Tower' speech to the National Association for Mental Health, June 1961 (online at <http://studymore.org.uk/xpowell.htm> (accessed on 6 February 2018)).

⁵¹ E.g. Jonathan Hughes, 'The indeterminate building', in Jonathan Hughes and Simon Sadler (eds), *Non-Plan: Essays on Freedom, Participation and Change in Modern Architecture and Urbanism* (London, 2001), 90-103; Daniel Abramson, *Obsolescence: an Architectural History* (Chicago, 2016).

⁵² *Hansard*, HL Deb 14 February 1962, vol 237 c 486.

housing in order to meet ambitious construction targets.⁵³ Another strand to the parliamentary debate related to the cost of new hospitals. Lord Taylor referred to ‘the squandering of money’ and noted that the Ministry of Health had already begun to provide ‘model schemes [...] as the Ministry of Education did for schools’, though more remained to be done.⁵⁴ The matter, he concluded in a telling turn of phrase, ‘must be faced exactly like any other problem in industrial production.’⁵⁵ In the Commons, William Hamilton similarly referred to the potential economies of standardization and industrialization, while Kenneth Robinson saw standardization as a way to reduce the protracted time taken to design and build new hospitals, asking ‘must ten years always elapse?’⁵⁶ Standardizing at least some of the ‘briefing’ and design work promised to reduce that time.

The experience of other publicly-funded building types thus suggested that standardization might usefully help to deliver the Hospital Plan, whose proposed new buildings, it was hoped, would in turn generate Powell’s desired economies. In 1962, Lord Mills confirmed that the Ministry of Health was ‘paying great attention’ to the idea, though without wishing to impose ‘a uniform pattern’.⁵⁷ Standardization was cited explicitly in the revised programme of 1966: ‘if more economical planning and design and more efficient building methods come to be adopted, some schemes may start, and finish, earlier than was originally anticipated.’⁵⁸ By that date, the idea was being discussed by a Building Working Party, set up in 1965 under the chairmanship of Frank Mottershead, a senior civil servant. A close

⁵³ Harwood, *Space, Hope and Brutalism*, 259; John Boughton, *Municipal Dreams: the rise and fall of council housing* (London, 2018), 128.

⁵⁴ *Hansard*, HL Deb 14 February 1962, vol 237 c 563.

⁵⁵ *Ibid.*, c 564.

⁵⁶ *Hansard*, HC Deb 4 June 1962, vol 661 cc 31-160.

⁵⁷ *Hansard*, HL Deb 14 February 1962, vol 237 c 573.

⁵⁸ ‘Hospital Building Programme’, 6.

examination of the Working Party's papers does much to illustrate how the project unfolded, and the challenges of re-planning the NHS.

THE EVOLUTION OF HARNESS

Mottershead's Working Party began by asking whether the cost of hospital building could be halved.⁵⁹ Two answers emerged. The first was the so-called 'Best Buy' hospital, an attempt to build as cheaply as possible without compromising medical efficacy (fig. 1). 'Best Buy' combined a simplified version of the Greenwich design with greater reliance on community care in order to reduce the number of in-patient beds.⁶⁰ The Working Party's other focus was standardization.⁶¹ The Ministry inaugurated a 'Standard Departments' project in 1965, looking at the design of general and maternity wards.⁶² In parallel, the dimensions used in hospital building were rationalized and a range of standard components – including doors and signage – was developed in order to promote cost savings through long production runs.⁶³

Standardization in hospital design has attracted relatively little interest among architectural historians, who have preferred to focus on bespoke projects by well-known firms.⁶⁴ However, it formed a significant strand in post-war British hospital architecture. The Oxford RHB, for example,

⁵⁹ TNA: PRO, Kew, MH166/486, Working Party (hereafter 'WP') minutes, 2 February 1966.

⁶⁰ W. Paul James and William Tatton-Brown, *Hospitals: Design and Development* (London, 1986), 7.

⁶¹ TNA: PRO, Kew, MH166/486, Note by Gedling, 'Control of Building Schemes', 29 October 1965; WP minutes, 20 January 1966 and 16 February 1966.

⁶² TNA: PRO, Kew, MH166/487, 'Manpower for the new development programme'; MH166/662, Memo by K.G. Reeve, 29 August 1967.

⁶³ 'Hospital Building Programme', 9.

⁶⁴ See e.g. Elain Harwood, *Space Hope and Brutalism: English Architecture 1945-1975* (New Haven and London, 2015), 277-95; Jonathan Hughes, 'Hospital-city', *Architectural History* 40 (1997), 266-88. There is brief discussion of standardization in Jonathan Hughes, 'The Brutal Hospital: efficiency, identity and form in the National Health Service', PhD thesis, University of London, 1996, 224-35, but the account was written before Ministry papers were released.

developed a successful approach which coupled a steel-framed structure with prefabricated cladding. By the end of 1971, twenty-nine hospitals of this kind had been constructed.⁶⁵ Meanwhile the well-publicized Vale of Leven Hospital (1955) corralled its departments into blocks of identical form (fig. 2).⁶⁶ Vale of Leven had been designed by Joseph Gleave, who at a 1961 symposium advocated the use of a regular planning grid, as well as standardized components.⁶⁷ Potentially significantly, Raymond Gedling – later to be a key member of the Mottershead Working Party – attended the symposium.⁶⁸

The Ministry's standard general and maternity ward designs were in hand by summer 1967;⁶⁹ they were planned as discrete H- and T-shaped blocks.⁷⁰ In early 1968, however, the scale of ambition increased. A new project sought to develop 'a family of individual hospitals related by common acceptance of basic design and operational principles'.⁷¹ What would this more comprehensive, so-called 'whole hospital', approach be like? One possible model was 'Best Buy'. It was already being used for almost identical new hospitals at Bury St Edmunds and Frimley, and would later appear in slightly modified form elsewhere. However, its assumption of a certain level of community provision and its compact planning (which mitigated against

⁶⁵ 'Oxford Method goes abroad', *Architects' Journal*, 155/19 (10 May 1972), 1011.

⁶⁶ The potential of this approach was also stressed in 1964 by the prominent architect John Weeks: 'Hospitals for the 1970s', *RIBA Journal*, 71/12 (December 1964), 507–16.

⁶⁷ Joseph Gleave, 'Discussion', in George H. Bell (ed.), *Hospital and Medical School Design* (Edinburgh, 1962), 98–99.

⁶⁸ List included in George H. Bell (ed.), *Hospital and Medical School Design* (Edinburgh, 1962), 133 [mis-spelt as 'Gelding'].

⁶⁹ TNA: PRO, Kew, MH166/662, Memo by K.G. Reeve, 29 August 1967.

⁷⁰ TNA: PRO, Kew, MH166/488, 'Progress Report on Development Projects', April 1967.

⁷¹ TNA: PRO, Kew, MH166/752, Memo by J.R.B. Green, 7 May 1968; also MH166/488, 'Building Working Party paper 21', February 1968.

easy expansion or local variation) meant that it was discounted.⁷² By 1969, an alternative strategy had emerged in which standardization would take place at the level of hospital departments, rather than the whole hospital. These departments would be selected and arranged according to local needs and site conditions. In plan, they would branch off a highly serviced corridor, named the 'Harness zone'.⁷³ Its name reflected the wiring 'harness' – the electrical backbone – of the contemporary motorcar. Implicit in this form of planning was the idea that 'the hospital building is a framework for the efficient discharge of functions whose performance may itself be subject to improvement'.⁷⁴ In other words, the hospital was conceived as a structured and potentially changing network, rather than a finite entity: really only the 'Harness zone' was seen as fixed. The use of a communications spine as the backbone of the proposed hospital recalls the speculative plans for the reconstruction of London produced by William and Aileen Tatton-Brown in the late 1930s, in which neighbourhoods were conceived as individual units in the manner of the later Harness hospital departments and were to be linked by a high-speed road system akin to the 'Harness zone'.⁷⁵ There are also similarities with Richard Llewelyn-Davies and John Weeks' Northwick Park Hospital (begun in 1963), the planning of which was fundamentally informed by the idea of indeterminacy and similarly combined a fixed spine with changeable branches.⁷⁶ More generally, much attention was being given to circulation and servicing within hospitals internationally, in part following the example in North America of Gordon Friesen.

⁷² TNA: PRO, Kew, MH166/752, Report of the Sub-Group on Operational Policies for a 'Harness' Hospital, March 1969.

⁷³ TNA: PRO, Kew, MH166/364, WP minutes, 20 October 1969.

⁷⁴ 'Hospital Building Programme', 8.

⁷⁵ For the 1930s plans, see John R. Gold, *The Experience of Modernism: Modern Architects and the Future City* (London, 1997), 145–51.

⁷⁶ Hughes, 'Brutal Hospital', 127–50.

In 1969 Ceri Davies, a senior member of the project team, proposed that the dimensions of the various departments connected to the 'Harness zone' would also be consistent. The ideal as he saw it was

to develop a range of functionally + dimensionally consistent departments which relate physically one to another to form coordinated whole hospitals. The precise configuration of the resulting hospital will be determined by its size, local geographic conditions etc. [...] My preliminary study on size + shapes of departments indicates that most departments (and probably all) could fit within a standard strip dimension – this is in the region of 15 m.⁷⁷

The result would be a 'standard kit of parts from which it would be possible to build up an almost endless range of hospital [designs]' based around strips of building fifteen metres wide (fig. 3).⁷⁸ These strips would be easily related to each other, and could potentially used the same building components. However, the 'kit of parts' continued to evolve. Alongside the linear strip plans, an alternative set of cruciform-plan departments was designed,⁷⁹ and they soon seem to have been preferred. Joined together, the result would be a hospital with a regular grid of internal courtyards (fig. 4).⁸⁰ This form echoed the 'mat plan' theories then being explored by such architects as Alison and Peter Smithson, in which buildings were planned with numerous internal courtyards, as well as the courtyard-based schemes for the reconstruction of Whitehall by Leslie Martin and Lionel March after 1963. The architects were probably also inspired by several recent hospitals which featured regular internal courtyards, including Wexham Park, Slough (begun 1957), and

⁷⁷ TNA: PRO, Kew, MH166/359, Note by Ceri Davies, 3 April 1969.

⁷⁸ Ibid.

⁷⁹ Howard Goodman, 'Pros and cons of hospital standardising', *British Hospital and Social Science Journal*, 5 December 1969, 2273–75.

⁸⁰ The cruciform basis of the plan distantly evokes Tecton's Highpoint flats in London of 1934, on which Tatton-Brown had worked.

Eastburn, West Yorkshire (1963-1971; fig. 5).⁸¹ Among the architects of Wexham Park was Howard Goodman, who had joined the Ministry of Health in 1960 and replaced Tatton-Brown as its chief architect in 1971.⁸² Meanwhile, Paul James, the designer of Eastburn, also had close Ministry connections, contributing to Harness feasibility studies.⁸³

Design work proceeded apace, with conferences being held to introduce the Harness approach to RHBs.⁸⁴ Experiments were carried out with respect to building cladding and structure, and a type of deep structural beam was devised. These beams were to span the fifteen-metre width of the wards, with no intermediate supports that might restrict interior planning (fig. 6). The beams also created a large area above the ceilings through which engineering services would be threaded. Databases, intended for those designing hospitals, listed the approved standard components (the 'Manufacturer Data Base') and charted the functions to be accommodated (the 'Activity Data Base'). There were also standard procedures for the processing and management of design projects ('Capricode'), and databanks of production material ('CUBITH'). The extent to which systems analysis could be applied to the Harness philosophy was evaluated. Computer programs were developed with the assistance of Cambridge University's Centre for Land Use and Built Form Studies, allowing workable plans to be generated in a matter of days for comparison. Here the modernizing and centralizing ambitions of 'Harness' are especially apparent, with the deployment of computers in the briefing and design processes reflecting an enthusiasm for computing on the part of government. Computers, initially seen by officials as

⁸¹ Eastburn: 'Two hospitals', *Architects' Journal*, 154/45 (10 November 1971), 1061-78.

⁸² 'Wexham Park Hospital', in Peter Stone (ed.) *British Hospital and Health-care Buildings: Designs and Appraisals* (London, 1980), 12-32 (p. 12).

⁸³ TNA: PRO, Kew, MH 166/658, Feasibility studies, April 1970.

⁸⁴ Harness – Report on Falfield 2 Exercise held in October 1971 (typescript report). Uncatalogued MARU collection at London South Bank University.

replacements for earlier office machines, were by the mid 1960s increasingly being installed in civil service departments. They were embedded in debates about modernity, especially after the Fulton Report of 1968 called for greater professionalism and efficiency on the part of the civil service.⁸⁵

Prototype Harness developments were put in hand, including an outpatient department at Walton Hospital, Merseyside, and complete hospitals at Dudley and Stafford (fig. 7). However, just as the project seemed to be nearing a full roll-out, it was challenged. In 1972, the construction specialist Henry Cruickshank concluded that Harness offered savings at the design and development stages, but that the buildings would be more expensive overall than those built on more conventional lines.⁸⁶ His report suggested that Harness ideas might usefully inform a site development plan, but that detailed design could more efficiently be carried out on an ad hoc basis. In other words, Harness would become a method of planning only, not a fully standardized approach to planning, design, and construction. This idea was debated at length by the Working Party, and was finally adopted in 1975.⁸⁷

On the one hand, the abandonment of the full Harness ideal was a pragmatic response to the economic situation, with severe cuts being imposed by government from late 1973 as a way to stem inflation. These cuts, introduced by a Conservative administration, were maintained by Labour after the 1974 elections.⁸⁸ In such circumstances, Harness seemed unduly luxurious in its generous planning and perhaps over-specified engineering.

⁸⁵ Jon Agar, *The Government Machine: a revolutionary history of the computer* (Cambridge, Mass., 2003), 312-5 and 338-9; Marie Hicks, *Programme Inequality: how Britain discarded women technologists and lost its edge in computing* (Cambridge, Mass., 2017), 111, 146, 150.

⁸⁶ O'Hara, *Dreams*, 189.

⁸⁷ TNA: PRO, Kew, MH166/1034, WP minutes, 2 October 1975.

⁸⁸ 'NHS estimates 1975-76', *Hospital and Health Service Review*, 71/5 (May 1975).

But how else might we explain its abandonment? Examining the effects of the managerial 'turn' in policy-making suggests a different interpretation. This 'turn' not only led to the Cruickshank report but also to government interest in 'cost-benefit analysis', a technique which was to prove significant in the undoing of Harness.

SYSTEMATIC DISCIPLINE: COST-BENEFIT ANALYSIS

Writing in 1977, the economist Alan Williams reflected on the relationship of his discipline to the NHS since the late 1960s:

The attitude of both the medical profession and health service administrators towards economics and economists has changed dramatically. Then, virtually nobody wanted to know, and viewed the enterprise with alarm, incredulity, or blank incomprehension.⁸⁹

Williams, who had joined the University of York in 1964, was seconded to the Treasury between 1966 and 1968 and also spent time in the Ministry of Health.⁹⁰ He sought to bring greater rigour to public policy decision-making through the practice of cost-benefit analysis:

[Cost-benefit analysis] is systematic, it imposes discipline, it requires assumptions to be explicit and evidence to be presented, it is communicable, replicable, and relies on evidence and analytical methods which can be challenged, validated or rejected by others in a manner consistent with the norms set by the "scientific" sub-culture of our society.⁹¹

⁸⁹ Alan Williams, 'Health Service Planning', in M.J. Artis and A.R. Nobay (eds), *Studies in Modern Economic Analysis* (Oxford, 1977), 301-38 (p. 320).

⁹⁰ Alan Maynard, 'Obituary: Alan Williams', *British Medical Journal* 331/51 (30 June 2005), doi:10.1136/bmj.331.7507.51 (accessed on 28 February 2017).

⁹¹ Alan Williams, "Cost Benefit Analysis: bastard science? and/or insidious poison in the body politick", in J.N. Wolfe (ed.) *Cost Benefit and Cost Effectiveness: Studies and Analysis* (London, 1973), 30-64 (p. 35).

Williams was a pioneer of the application of cost-benefit analysis to medical treatments within the emerging discipline of 'health economics'.⁹² He also continued to maintain a working relationship with the DHSS,⁹³ with his involvement fundamentally informing the fate of Harness.

It was noted at a 1970 conference (organized by Williams) that decisions relating to health policy were 'taken mainly on political judgment, or on grounds of expediency, or in relation to known public pressures'.⁹⁴ The 1962 Plan can be understood thus. Lord Craigton reported in 1960 that 'we simply have not nearly enough of the basic information we ought to have to plan the future shape of the service and to improve its effectiveness'.⁹⁵ Raymond Gedling made the same point about hospital design more generally: 'judgment is sometimes intuition; it is sometimes the very worthwhile benefit of one's experience over years; and sometimes I think it consists of having a little drawer with a rule inside it which says "W.C.s, 80 sq. ft."'.⁹⁶ However, in the early 1970s, the Heath government increasingly sought to encourage a rational approach to policymaking and spending.⁹⁷ In July 1971, a meeting of DHSS officials considered 'the running costs and cost benefit aspects of the Harness brief to treasury and in this connection [the] possibility of further exploration of the factors governing service planning in the medium and long term'.⁹⁸ Subsequently, J.W. Hurst of the Economic Advisor's Office noted that members of the York health economics group

⁹² E.g. Alan Williams, 'Health care priorities – economic considerations', *Hospital and Health Services Review*, 71/8 (August 1975), 273-76.

⁹³ TNA: PRO, Kew, MH166/927, Papers relating to Health Economics conference, 1970.

⁹⁴ TNA: PRO, Kew, MH166/927, Transcript of paper by H.C. Salter, 1970.

⁹⁵ Lord Craigton, 'Opening address', *RIBA Hospitals Course Handbook* (London, 1960), 1-2 (p. 2).

⁹⁶ Gedling, 'National Health Service', 11.

⁹⁷ Theakston, 'Heath Government'.

⁹⁸ TNA: PRO, Kew, MH166/927, Informal meeting held on 16 July 1971 to discuss Harness costs.

might undertake a full analysis.⁹⁹ Hurst cited a memo by a DHSS colleague which noted that insufficient consideration of the economic aspects of Harness had accompanied the design work.

Williams' direct involvement in Harness came about following the reform of government 'research and development' spending. In 1971, Lord Victor Rothschild produced a report for government on this topic.¹⁰⁰ He argued that government 'R&D' should be overseen by 'customer' departments, each with a chief scientist, which would commission research from 'contractors' to support their decisions. Its recommendations were broadly accepted, and were implemented in 1974. Williams, as a member of the Chief Scientist's Research Committee, was thus nominated to join the hospital Building Working Party.¹⁰¹ The timing of his arrival was significant. As we have noted, the Cruickshank Report – itself evidence of a 'business-minded' approach to policy – had suggested the scaling back of Harness, and, with cuts in government expenditure, the Working Party now sought to establish 'the direction which this [programme] should most profitably and economically take to assist health and local authorities at a time when money was scarce and new policies were being developed.'¹⁰² While public finances remained healthy there had been little incentive to question the programme. Abandoning it would hardly have seemed palatable in political terms. No parliamentarian would be keen to learn that the new hospital proposed for their constituency was not going to be built. However, in a deteriorating economy, Harness posed a particular challenge. Echoing Cruickshank's conclusions, a 1973 report concluded that the capital cost of a Harness

⁹⁹ TNA: PRO, Kew, MH166/927, J.W. Hurst to J.D. Pole, 18 July 1971.

¹⁰⁰ Miles Parker, 'The Rothschild Report (1971) and the purpose of government-funded R&D: a personal account', *Palgrave Communications*, 2 (Art 16053) (2016). Online at <http://www.palgrave-journals.com/articles/palcomms201653> (accessed on 7 February 2017).

¹⁰¹ TNA: PRO, Kew, MH166/1032, WP minutes, 11 October 1973.

¹⁰² TNA: PRO, Kew, MH166/1033, WP minutes, 27 September 1974.

hospital would be 7% more than the approved cost limits, although it was believed that savings at other stages of the process would mean that a Harness hospital might not be more expensive overall than a one-off design.¹⁰³

Williams, following Cruickshank, argued that Harness should comprise only what was termed 'Data Pack 1' – i.e., the stage when outline designs and layouts were produced.¹⁰⁴ No use would be made of the proposed standardized structural components or cladding. He suggested that economic analysis showed that to develop and use only 'Data Pack 1' gave benefits similar to the use of the total system but with a much lower outlay. The architect Howard Goodman, however, proposed the continuation of the programme, arguing that to stop here made

insufficient contribution to the Department's broad objective of enabling hospitals to be built with a saving of planning and design time and with full compatibility of architectural and engineering services. This was the essence of the programme of systems and standards; examination of many projects pursued on traditional lines showed that compatibility was not being achieved in them.¹⁰⁵

In part, the debate was one of architectural philosophy. Should new hospitals be the product of a fully integrated, standardized system of briefing, design, and construction, or should the designers of individual projects have greater freedom? The debate also represented a test of the extent to which economics could be applied to policy. In the face of growing demands for the use in decision-making of quantifiable evidence, some Working Party members –

¹⁰³ TNA: PRO, Kew, MH166/1032, BWP Paper 63, 'Harness Progress Report', 1 May 1973.

¹⁰⁴ TNA: PRO, Kew, MH166/1033, BWP Paper 89, 'Harness Evaluation'; WP minutes, 27 September 1974.

¹⁰⁵ Ibid.

not least the architects – were keen to make claims for the so-called ‘unquantifiable’ benefits of Harness.¹⁰⁶

Williams’ arguments ultimately prevailed. That Harness was scaled was unsurprising in view of the poor state of the public finances, but it might also be understood as evidence of the new attitude in policymaking – the ‘systematic discipline’ advocated by Williams. At the same time, the way in which the Harness project had evolved also laid the programme open to question, for it similarly suggested a lack of ‘systematic discipline’. In 1940s Hertfordshire, the urgent need for new schools had served to focus attention, and a close-knit team had worked with a single manufacturer so that the first schools could be realised quickly. In contrast, the standardized hospital programme proceeded at a somewhat glacial pace, and sometimes seemed to be rather less single-minded. A note on the procedure to be followed by one of the many Harness committees demonstrates barely disguised irritation at the way that topics were brought up time and time again.¹⁰⁷ *Hospital and Health Services Review* concurred, concluding in the wake of the Cruickshank Report that Harness, ‘for all its great merits’, was ‘inadequately organised’.¹⁰⁸ In addition, it seemed to be ‘in danger of being pursued for its own sake’. In this respect, the relationship between the initial standard departments work and the parallel ‘Best Buy’ exercise was not clear, and while the Working Party proposed in February 1966 that the two streams of work would eventually come together, they were essentially competing.¹⁰⁹ Not only that, but whole streams of work were initiated and then abandoned. As we have noted, the standard department designs produced at the start of the project

¹⁰⁶ E.g. TNA: PRO, Kew, MH166/1033, BWP Paper 92, ‘Harness Evaluation’, 23 January 1975; MH166/1033, BWP Paper 78 ‘Harness Programme: Analysis of Costs and Benefits’, 21 March 1974.

¹⁰⁷ TNA: PRO, Kew, MH166/766, ‘Conduct of Business at HPT meetings’, 1 January 1971.

¹⁰⁸ ‘The Building Programme’, *Hospital and Health Services Review*, 69/4 (April 1973), 122–23.

¹⁰⁹ TNA: PRO, Kew, MH166/486, WP minutes, 16 February 1966.

did not easily relate to each other or the emerging 'whole hospital' Harness philosophy, which was developed as a parallel exercise.¹¹⁰ It was suggested that the initial templates should be presented as designs for the extension of existing hospitals,¹¹¹ presumably so that this exercise did not seem like a complete waste of effort as attention moved to 'whole hospital' approaches. Other examples of apparent 'mission creep' include the development of the cruciform templates as an alternative to earlier linear designs, the expansion of Harness to include systems work in 1972, and the removal of that systems work in 1975.¹¹² No wonder that as early as 1968 Ministry staff wondered if to outsiders it would seem that its efforts were not developing in a logical fashion.¹¹³ Or, as a more optimistic commentator put it, 'it is typical that the Department's lively architectural team move from one interesting idea to another before the first is more than a hole in the ground'.¹¹⁴ In some ways, Harness was in good company, being one of several technology-led government projects to go awry in the 1970s.¹¹⁵ And yet, the problems were not simply related to its ill-defined scope and rising cost. Who were the architects working for? As we shall see next, the RHBs were not always enthusiastic collaborators.

HARNESS AND THE STRUCTURE OF THE NHS

In 1966 the Working Party recognized that the standardization programme might easily become unmanageable, noting that it did not 'consider that there

¹¹⁰ TNA: PRO, Kew, MH166/488, BWP Paper 21 and BWP Paper 23, 1968. TNA: PRO, Kew, MH166/752, Presentation to Technical Committee, 10 June 1969.

¹¹¹ TNA: PRO, Kew, MH166/663, Steering Committee, 26 June 1968: this was Goodman's view, whereas other members of the Working Party thought that compatibility might be maintained.

¹¹² TNA: PRO, Kew, MH166/1034, Chairman's Brief, 22 April 1975.

¹¹³ TNA: PRO, Kew, MH166/751, Minute of 21 October 1968.

¹¹⁴ 'Hospital design', *Hospital and Health Services Review*, 68/9 (September 1972).

¹¹⁵ Agar, *Government Machine*, 12.

would [...] be only one standard ward, [...] we should have to guard against the proliferation of designs.’¹¹⁶ In 1967, it similarly cautioned that

the process must not be allowed to get out of hand. It would not be consistent with the concept of standardisation to devise a wide range of variations to a standard plan.¹¹⁷

In this respect, hospital standardization – and, indeed, the whole attempt to plan hospital provision – challenged the decentralized nature of the health service. The organizational structure of the NHS allowed individual regions considerable autonomy in determining their needs and proposing solutions. Proposals for building work were made by the RHBs, with the Ministry (and then the DHSS) only giving detailed consideration to large schemes.¹¹⁸ Its role, in theory at least, was to provide expertise and a check on practice. The very idea of standardization might, therefore, be resisted at the local level, as the Working Party recognized in 1966: ‘it would be incompatible with the present distribution of responsibilities between the Department and Boards for the former to impose standard designs on the latter’.¹¹⁹ Indeed, a paper of March 1966 concluded that ‘building is a large part of the work of hospital boards and the imposition of standardisation might be seen by some as the first stage in a complete usurpation of their functions’.¹²⁰ Certainly some soon feared that standardization was being imposed on them.¹²¹ There was also a risk that it would seem as if the considerable effort which some RHBs had invested in hospital design during the 1960s was being set aside.¹²² Furthermore, RHBs’ relationships with each other might also mitigate against standardization.

¹¹⁶ TNA: PRO, Kew, MH166/487, BWP Paper 10, March 1966.

¹¹⁷ TNA: PRO, Kew, MH166/488, WP minutes, 30 November 1967.

¹¹⁸ N.W. Graham, ‘Planning procedures’, in George H. Bell (ed.), *Hospital and Medical School Design* (Edinburgh, 1962), 68–72 (p. 70).

¹¹⁹ TNA: PRO, Kew, MH166/486, WP minutes, 20 January 1966.

¹²⁰ TNA: PRO, Kew, MH166/487, BWP Paper 10, March 1966.

¹²¹ TNA: PRO, Kew, MH166/751, Meeting with East Anglian RHB, 14 October 1968.

¹²² TNA: PRO, Kew, MH166/487, Note of meeting, 16 March 1966.

They would, it was noted in February 1966, 'produce any number of good reasons for not adopting' the designs of other Regions.¹²³

The Boards' reluctance to adopt others' designs was not simply a matter of professional rivalry or independence. Rather, it also related to the way that hospitals were operated. RHBs were responsible for defining the 'policies' by means of which their hospitals would be run. The result was that spaces within a hospital would be staffed and used in ways that varied around the country. By implication, the size, shape, and specification of these spaces might similarly vary. These variations added to the challenges with which standardization already had to contend, such as the topography of individual sites, which could conceivably include buildings that were to be retained. The standard departments research needed to take such variations into account, and it came under pressure as a result. In August 1968, Tatton-Brown cautioned that he was

very concerned at the way the introduction of Standard Departments is being handled by the Department. In spite of repeated warnings, Boards are being offered a standard ward block plan produced by the Ministry as a *fait accompli* – a ward plan to end all ward plans.¹²⁴

The problem was partly that, to produce a standard design, a set of policies first had to be selected, and these policies might not be universally accepted by RHBs. For example, when a proposed standard department was evaluated by a group of nurses,

the result was not encouraging. The proposed preparation area only permits one method of supply – the comprehensive pre-pack tray system and it provides an extremely "tight" area for this. You will agree I'm sure that although our outline policy says that a prepacked

¹²³ TNA: PRO, Kew, MH166/487, WP minutes, 9 February 1966.

¹²⁴ TNA: PRO, Kew, MH166/664, Tatton-Brown to J. Carswell, 13 August 1968.

tray system will be used we cannot in making national policy overlook the many hospitals who will not be able to afford or will not care to operate a comprehensive rather than a “splitters” sterile supply system. [...] The hatch system may work better in Newcastle where labour is more readily available perhaps than in the South.¹²⁵

In spring 1967, the Working Party suggested that Boards were free to take on the standard building forms without the underlying policy assumptions.¹²⁶ However, in August 1967, it was thought that it would be hard to standardize the general ward layout without a rapid move to national policies, and that variations in layout were accordingly necessary.¹²⁷ In November, the Working Party concluded that ‘in the course of consultations with outside representative bodies [...] and with S.A.M.O.s [Senior Assistant Medical Officers] it became apparent that there was a considerable demand for alternative designs for wards and maternity departments based on different operational policies’.¹²⁸ Policy variation thus implied design variations.

If the initial standard ward designs thus challenged devolved practice, the whole-hospital Harness approach amplified the issue. In May 1968, it was reported that RHB secretaries had believed that the whole-hospital exercise was dominated by architects, a line of thinking that perhaps confirms the idea of Harness as in part an architect-led programme: ‘plans were produced and then the operational policies and functional requirements were produced rather than it being done the other way round in accordance with [the Ministry’s] own building procedures.’¹²⁹ As the programme developed, the Working Party suggested that the phrase ‘whole hospital design’ was

¹²⁵ TNA: PRO, Kew, MH166/766, ‘Newcastle – Harness Operating Department’, 18 January 1971.

¹²⁶ TNA: PRO, Kew, MH166/488, WP minutes, 20 April 1967.

¹²⁷ TNA: PRO, Kew, MH166/662, Memo by K.G. Reeve, 29 August 1967.

¹²⁸ TNA: PRO, Kew, MH166/488, BWP Paper 18, Progress Report, November 1967.

¹²⁹ TNA: PRO, Kew, MH166/663, Memo by K.W. Blakey, 20 May 1968.

preferable to any suggestion of standardization.¹³⁰ The choice of words reflected the conception of Harness as a system rather than a static whole-hospital template, but it also neatly played down any sense of an imposed standard. At various stages, the need for consultation with RHBs was emphasized, if only for strategic reasons: 'co-operation should make the end result more acceptable.'¹³¹ If Boards remained unconvinced about the merits of standardization, the designs would simply sit on a shelf and the resources spent on producing the templates would have been wasted. Not only that, but there was also a question of staffing. Goodman reportedly wanted standard departments to be designed by the Ministry, rather than at a devolved level,¹³² but even allowing for the expansion of its architectural function, the Ministry (and later the DHSS) lacked the resources fully to develop the Harness programme itself in a timely fashion. By allocating research into the design of individual departments to the architects employed by the RHBs, the programme was able to proceed more rapidly. In addition, regional agreement might be more effectively secured.

The evolution of Harness was seen in some quarters as evidence of creeping bureaucracy and centralization, as an editorial in *Hospital and Health Services Review* explained:

It is not difficult to see why the central department has involved itself much more in the running of the service than had been expected in 1948. Any organisation has a natural tendency to maintain and if possible extend its functions. A central organisation in a sense knows more [...] The aims of the service have never been clear, so that

¹³⁰ TNA: PRO, Kew, MH166/664, WP minutes, 1 August 1968.

¹³¹ TNA: PRO, Kew, MH166/750, 'Building Research and Development', n.d.

¹³² TNA: PRO, Kew, MH166/487, BWP Paper 13, 'Implementing the Report of the Working Party', n.d. [1966/67].

circulars and other interference have veered between suggestion and instruction [...].¹³³

The author of a 1974 article – written at a time when the RHBs were being replaced by the new Health Authorities – made similar points, observing that ‘factors making for bureaucracy are strengthened by tendencies within the service’ and noting the ever-growing collection of guidance documents issued from the centre.¹³⁴ The building programme seemingly amplified this line of travel:

Planning (in the sense of capital schemes) became a major task in the 1960s when the Hospital Building Programme began. Early hesitant guidance soon hardened into firm rulings, which now seem likely to result in straightforward standardisation with Harness designs.

Standard design will mean standard working methods, to give a standard level of service against norms centrally decided. But even pre-Harness working has been constrained by the tight cost limits laid down, so that experiment and departure from centrally-approved provision has been possible only in the rare cases where no extra spending is incurred.¹³⁵

The author of a 1977 article concluded that the NHS had a fundamental ‘structural problem’, noting that the DHSS issued more circulars in a month than the Department of Education and Science managed in a year.¹³⁶ Indeed, the new Regional Health Authorities were part of a more hierarchical structure than the previous RHBs. In December 1975, the Minister of Health, David Owen, argued that:

¹³³ ‘The role of the Department’, *Hospital and Health Services Review*, 70/1 (January 1974), 1–3 (p. 1).

¹³⁴ R.L. Stanyer, ‘NHS reorganisation and bureaucracy’, *Hospital and Health Services Review*, 74/1 (April 1974), 115–19 (p. 115).

¹³⁵ *Ibid.*, 116.

¹³⁶ J.D. Stewart, ‘The NHS – the structural problem’ *Hospital and Health Services Review*, 73/9 (September 1977), 311–15.

The health service in many areas has not achieved sufficient benefits from being a national centralised service. Nowhere is this more obvious than in hospital design. Up and down the country, regional health authorities have been designing their own one-off hospitals. The Best Buy is a notable exception.¹³⁷

Thus for all that Owen argued in December 1975 that ‘the DHSS does not wish to impose detailed designs’, the ‘genuine partnership’ that he proposed was intended ultimately ‘to ensure that the Department’s lead in the design work reaps its full rewards.’¹³⁸ There are echoes here of wider centralizing tendencies on the part of post-war governments, which Marie Hicks has linked explicitly to the use of computer technologies as a way to concentrate power among a small technocratic elite.¹³⁹

CONCLUSIONS

Harness was an ambitiously conceived manifestation of the belief that modern hospitals could deliver long-term savings for government. It was hoped that standard layouts and structural components would speed the realization of hospitals which, through their planned location and flexible design, would accommodate high-technology modern medicine and potentially growing patient demand in an efficient, cost-effective manner. The ‘off-the-shelf’ information contained in the Harness system would facilitate financial ‘control’ of the process.¹⁴⁰ The programme thus responded to a desire for economy – in operation and also, initially at least, in construction – whilst also embodying the modernizing impulses and belief in centralized planning that were shared by both Labour and the Conservatives in the late 1950s and 1960s. Indeed, by the early 1970s the modernity of Harness was evident not

¹³⁷ Hospital building’, *Hospital and Health Services Review*, 72/1 (January 1976), 26–29 (p. 28).

¹³⁸ *Ibid*, 29.

¹³⁹ Hicks, *Programmed Inequality*, 11–12.

¹⁴⁰ TNA: PRO, Kew, MH166/1033, BWP Paper 92, ‘Harness Evaluation’, 23 January 1975.

only in the contemporary appearance and ambiance of the planned hospitals but also the use of innovative data processing techniques and computer technology to design them. Despite the failure to evaluate fully the economics of Harness in its early stages, standardization was undoubtedly more than an expensive 'hunch', to borrow the term used by one civil servant to describe the basis of health policy in 1970.¹⁴¹ The idea that it might allow a reduction in hospital design time without compromising quality seemed reasonable in the face of the extended time that had been spent designing 'one-off' hospitals in the 1960s. Not only that, but rationalized planning had been deployed apparently successfully in such hospitals as Vale of Leven and Eastburn, as well as schools and housing.

The causes of the demise of the Harness programme were several. At a time of spending cuts, the cost of large numbers of lavishly planned and serviced hospitals was not only undesirably high, but promised to be higher than more conventionally designed projects. Also significant was growing scepticism of standardized, industrialized building programmes. Owen, reviewing a document which proposed the scaling back of Harness, concluded in 1975 that 'we have had enough building disasters on our hands'.¹⁴² However, other issues suggest the need for a more nuanced interpretation. Although rooted in a well-intentioned strain of architectural modernism which had successfully delivered standardized schools and housing, the greater complexity of the hospital (compared with those building types) was challenging. Quite apart from the range of functions, spaces, and technologies a hospital has to accommodate, Harness was particularly ambitious in its engineering. Its wide-span beams were accompanied not only by cladding and other building components but also a vast range of room

¹⁴¹ TNA: PRO, Kew, MH166/927, Transcript of paper by H.C. Salter, 1970.

¹⁴² TNA: PRO, Kew, MH 166/1151, Note by David Owen, 4 August 1975.

layouts as well as the paraphernalia of databases and computer programs. The challenges were compounded by the ever-expanding scale of the Harness programme. In this respect, the apparent rationality of the 1960s planning documents contrasts with the rather more iterative development of a strategy for their implementation. In time, Harness fell foul of a drive towards rational, evidence-based policy-making. Not only that, but Harness foundered for the very reason that had necessitated its flexibility, namely the need for local RHBs to shape their own provision. The tensions that proved the undoing of Harness in the mid-seventies resulted from the way that the NHS had been set up in the 1940s.

Was Harness a failure? Only two complete hospitals were built, in Dudley and Stafford; even then, the later phases at Stafford featured a modified version of the system.¹⁴³ Most 1970s hospitals remained one-off projects. However, the basic Harness planning principles had a significant afterlife.¹⁴⁴ In 1975, the Harness plans were scaled back according to 'Best Buy' philosophy, and the ambition to standardize hospital building structure and cladding was abandoned. The result was the so-called 'Nucleus' approach, which was essentially concerned with planning alone rather than being a comprehensive system of briefing, design, and construction. Its more limited ambition allowed it successfully to navigate the centre/periphery relationship that had partly tripped up Harness. Newham District General, east London, had been planned as a Harness hospital, but in August 1975 was announced as the first Nucleus project.¹⁴⁵ Others followed. More than fifty Nucleus

¹⁴³ [News], *Hospital and Health Services Review*, 75/10 (October 1979), 361.

¹⁴⁴ Susan Francis, Rosemary Glanville, Ann Noble and Peter Scher, *Fifty Years of Ideas in Healthcare Design* (London, 1999), 34.

¹⁴⁵ 'Newham Nucleus Hospital', *Hospital and Health Services Review*, 75/12 (December 1979), 420–22.

schemes had been begun by 1986, including prototype low-energy versions,¹⁴⁶ and Nucleus became the dominant form of new DGHs in England in the 1980s (fig. 8). Harness-related systems, too, including the Activity Database, also survived in updated form into the twenty-first century, even as a new wave of ‘private finance initiative’ hospitals took rather different and often more consciously ‘iconic’ forms.

Otto Saumarez Smith has recently proposed that central government’s approach to inner-city planning in the 1980s represented not a complete neo-liberal rupture with Welfare State ideologies but rather a reworking of earlier ideals.¹⁴⁷ We might similarly conclude that, while ‘the party [was] over’, as Tony Crosland put it with reference to local-authority housing in 1975, the ‘after-party’ was only just beginning as far as hospital construction was concerned. The example of the standardized hospital programme suggests not only that the framing of a ‘long 1980s’ in British architectural history might be productive as a counterpart to the more sophisticated and historicized understandings of the period now being advanced by social and political historians,¹⁴⁸ but also that the building programmes of those ‘long 1980s’ should be interrogated for continuities as well as the significant changes of Thatcherism. The sixties fashion for planning had a longer afterlife than we might initially assume.

Acknowledgements:

¹⁴⁶ James and Tatton-Brown, *Hospitals*, 8.

¹⁴⁷ Otto Saumarez Smith, ‘The inner city crisis and the end of urban modernism in 1970s Britain’, *Twentieth-Century British History*, 27/4 (2016), 578-98.

¹⁴⁸ E.g. Stephen Brooke, ‘Living in “New Times”’: historicizing 1980s Britain’, *Historical Compass*, 12/1 (2014), 20-32.

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